

HYDROPTILIDAE FROM KANSAS (TRICHOPTERA)¹

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ABSTRACT: Twenty-two species of hydroptilids are reported as new to Kansas. Two of these species were previously known only from the type locality and two others represent interesting range extensions. Distributions within Kansas are given and North American distributions are listed by state.

Records of Trichoptera from Kansas are few. None of the 22 hydroptilid species recorded here have ever been reported from Kansas, although the presence of many offer no surprise when overall North American distributions are considered. This is indicative of the lack of work on Kansas caddisflies.

The records given here are of adults taken from light trap samples. All were collected by the staff of the State Biological Survey of Kansas between 1974 and 1977 as part of its comprehensive aquatic invertebrate survey program.

Several species have been found only locally in the state. Seven of these; *Hydroptila armata* Ross, *H. grandiosa* Ross, *H. perdita* Morton, *Neotrichia falca* Ross, *N. vibrans* Ross, *Stactobiella delira* (Ross), and *S. palmata* (Ross) are found only in the southeastern corner of Kansas. This area of the state is part of the Ozarkian plateau.

Only species of special interest are annotated. All North American records available for each species are given so that the distributions in Kansas can be taken into proper perspective.

We feel enough data is now available to warrant a listing of species and localities. We expect further collection and study will increase our understanding of Kansas distribution and add a few more species to this list.

Hydroptila Dalman

H. ajax Ross

Collection Records from Kansas: Chautauqua Co., Caney R. at Cedarvale, 15 Jun 1977; Clark Co., St. Jacobs Well, 12 Jul 1976; Cowley Co., Grouse Cr., NE of Cameron City, 15 Jun 1977; Douglas Co., Wakarusa R., S. of Lawrence, 8 Jul 1976; Ellsworth Co., Kanopolis Reservoir, 8 Jun 1977; Geary Co., Geary Co. St. Lake, 10 May 1977; Humboldt Cr., 15 mi SE of Junction City, 11 May 1977; Russell Co., Wilson Reservoir, 29 July 1976.

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Distribution in North America: Illinois, Indiana, Kansas, Kentucky, New York, Oklahoma, Oregon, Washington and Wyoming.

H. angusta Ross

Kansas: Chase Co., Cottonwood R. at Cottonwood Falls, 31 Aug 1977; Chautauqua Co., Caney R. at Cedarvale, 15 Jun 1977; New Sedan City Lake, 29 Jul 1975 and 2 Aug 1977; Elk City Reservoir, 3 Aug 1977; Cherokee Co., Spring R., E of Baxter Springs, 2 Aug 1976; Coffey Co., Neosho R. at Burlington, 15 Jun 1976; Crawford Co., Lake Crawford, E of Farlington, 3 Aug 1976; Douglas Co., Wakarusa R. S of Lawrence, 8 Jun 1976; Kansas R. at Eudora bridge, 3 Aug 1976; Ellsworth Co., Kanopolis Reservoir, 15 July 1976, 17 and 19 Jun 1977; Horsethief Canyon at Kanopolis Reservoir, 15 Jun 1977; Geary Co., Geary Co. St. Lake, 10 May 1977; Jewell Co., Jewell Co. St. Lake, 5 Aug 1977; White Rock Cr. below Lovewell dam, 17 Aug 1977; Linn Co., Marais des Cygnes Wildlife Refuge at the Marais des Cygnes R. N of Hwy 69, 4 Aug 1976; Mitchell Co., Solomon R. at Beloit City Park, 21 Jun 1977 and 4 Aug 1977; Montgomery Co., Montgomery Co. St. Lake, 24 Jun 1976; Russell Co., 29 July 1976 and 25 July 1977; Woodson Co., Woodson Co. St. Lake, 6 Sept 1976; Yates Center City Lake, 16 Sept 1976.

North America: Illinois, Indiana, Kansas, Kentucky, Missouri, New Mexico, Ohio, Oklahoma and Texas.

H. armata Ross

Kansas: Cherokee Co., Shoal Cr. S of Galena at K-26 bridge, 28 Apr 1977 and 15 Jul 1977.

North America: Arkansas, Illinois, Indiana, Kansas, Kentucky, Michigan, Minnesota, New Hampshire, Oklahoma, Quebec, Tennessee, Texas and Wisconsin.

H. consimilis Morton

Kansas: Atchison Co., Atchison Co. St. Lake, 24 May 1977; Ellsworth Co., Kanopolis Reservoir, 8 Jun and 3 Aug 1977; McPherson Co., McPherson Co. St. Lake, 9 Jun 1977; Ottawa Co., Ottawa Co. St. Lake, 9 Jul 1977; Russell Co., Wilson Reservoir, 29 Jul 1976; Scott Co., Lake Scott St. Park at spring, 16 Jul 1975, 31 May and 1 Jun 1977; Trego Co., Cedar Bluff Reservoir, 11 Jul 1977.

North America: Transcontinental.

H. grandiosa Ross

Kansas: Cherokee Co., Shoal Creek S of Galena at K-26 bridge, 31 Jul 1975; Crawford Co., W Branch Drywood Cr., NE of Farlington, 20 Jul 1977.

North America: Arkansas, Illinois, Indiana, Kansas, Minnesota, Missouri, Oklahoma, Texas and Wisconsin.

H. pecos Ross

This record represents a considerable range extension for this species. It was initially described from the Pecos River at Carlsbad, New Mexico (Ross, 1941), and later reported from the Boulder River in Colorado and the N. Platte and Bluegrass Rivers in Wyoming (Denning, 1947). The Kansas locality, Spring Creek, is a shaded, clear, cool stream about 1.5 m wide. This species has been collected in April (Ross, 1941), and August (Denning, 1947), and is here reported in July.

Kansas: Trego Co., Spring Cr., NE of the Nat'l. Fish Hatchery, Cedar Bluff Reservoir, 26 Jul 1976.

North America: Colorado, Kansas, New Mexico and Wyoming.

H. perdita Morton

Kansas: Cherokee Co., Spring R., E of Baxter Springs, 2 Aug 1976; Shoal Cr. S of Galena at K-26 bridge, 28 Apr and 15 Jul 1977.

North America: Arkansas, Illinois, Kansas, Kentucky, Michigan, Minnesota, New York, Ontario, Pennsylvania and Quebec.

H. rono Ross

Ross and Spencer (1952) reported this species as "widespread through western montane regions". It is here recorded from the same collection site as *H. pecos* Ross, which represent a considerable range extension. Collections of *H. rono* are known only from June and July.

Kansas: Trego Co., Spring Cr., NE of the Nat'l. Fish Hatchery, Cedar Bluff Reservoir, 26 Jul 1976.

North America: British Columbia, California, Kansas, Montana, Oregon, Utah and Wyoming.

H. scolops Ross

This species was previously known only from the holotype, which was collected along the Ohio River at Shawneetown, Illinois (Ross, 1938). The holotype was collected in May, as was our single male specimen.

Kansas: Atchison Co., Atchison Co. St. Lake, 24 May 1977.

North America: Illinois and Kansas.

H. waubesiana Betten

Kansas: Butler Co., Blue Stem Lake, 14 Jul 1976; Chase Co., Chase Co. St. Lake, 31 Aug 1977; Cherokee Co., Spring R., E. Baxter Springs, 2 Aug 1976; Coffey Co., Neosho R. at Burlington, 15 Jun 1976; Cowley Co., Cowley Co. St. Lake, 17 Jun 1975; Crawford Co., W. Branch Drywood Cr., NE of Farlington, 20 Jul 1977; Douglas Co., Wakarusa R.S. of Lawrence, 8 Jul 1976; Ellsworth Co., Horsethief Canyon at Kanopolis Reservoir, 15 Jun 1977; Beaver Ponds, NE St. Park at Kanopolis Reservoir, 8 Jun 1977; Jewell Co., Jewell Co. St. Lake, 5 August 1977; White Rock Creek below Lovewell dam, 17 Aug 1977; Linn Co., Marais des Cygnes Wildlife Refuge at Marais des Cygnes R. N of Hwy. 69, 4 Aug 1976; McPherson Co., McPherson Co. St. Lake, 9 Jun 1977; Ness Co., S. Fork Walnut Cr. at K-283 bridge, 28 Jul 1976; Ottawa Co., Ottawa Co. St. Lake, 9 Jul 1977; Riley Co., swamp below Tuttle Creek Reservoir dam, 11 May 1977; Russell Co., Wilson Reservoir, 25 and 29 Jul 1976; Trego Co., Spring Cr. NE Nat'l. Fish Hatchery, Cedar Bluff Reservoir, 26 Jul 1976; Woodson Co., Yates Center City Lake, 16 Sept 1976.

North America: Ubiquitous east of the Rocky Mountains.

Ithytrichia Eaton

I. clavata Morton

Kansas: Chase Co., Chase Co. St. Lake, 21 Aug 1977; Riley Co., swamp below Tuttle Creek Reservoir dam, 11 May 1977.

North America: Transcontinental.

Mayatrachia Mosely

M. ayama Mosely

Kansas: Chautauqua Co., Caney R. at Cedarvale, 15 Jun 1977; Cowley Co., Grouse Cr., NE of Cameron City, 15 Jun 1977; Douglas Co., Kansas R. at Eudora, 3 Aug 1976.
North America: Widely distributed east of the Rocky Mountains.

Neotrichia Morton*N. falca* Ross

Previously this species was known only from Illinois and has not been reported in the literature since Ross (1944).

Kansas: Crawford Co., W. Branch Drywood Cr., NE of Farlington, 20 Jul 1977.

North America: Illinois and Kansas.

N. minutisimella (Chambers)

Kansas: Chase Co., Cottonwood R. at Cottonwood Falls, 31 Aug 1977; Douglas Co., Wakarusa R. S of Lawrence, 8 Jul 1976; Linn Co., Marais des Cygnes Wildlife Refuge at the Marais des Cygnes R. N of Hwy. 69 bridge, 4 Aug 1976.

North America: Arkansas, Florida, Illinois, Indiana, Kansas, Kentucky, Louisiana, Missouri and Oklahoma.

N. okopa Ross

Kansas: Chase Co., Chase Co. St. Lake, 31 Aug 1977; Chautauqua Co., Caney R. at Cedarvale, 15 Jun 1977.

North America: Arkansas, Florida, Illinois, Indiana, Kansas, Kentucky, Missouri, New York, Oklahoma, Ontario, Texas and Wisconsin.

Orthotrichia Eaton*O. aegerfasciella* (Chambers)

Kansas: Atchison Co., Atchison Co. St. Lake, 24 May 1977; Chase Co., Chase Co. St. Lake, 31 Aug 1977; Crawford Co., Lake Crawford, E of Farlington, 3 Aug 1976; Jewell Co., White Rock Creek below Lovewell dam, 17 Aug 1977; Montgomery Co., Montgomery Co. St. Lake, 24 Jun 1976; Neosho Co., Neosho Co. St. Lake, 18 Jul 1977; Ness Co., S. Fork Walnut Cr., K-283 bridge, 28 Jul 1976; Ottawa Co., Ottawa Co. St. Lake, 19 Jul 1977; Pottawatomie Co., Pottawatomie Co. St. Lake #1, 10 Aug 1976; Republic Co., old wooded pond NW of Haworth, 6 Aug 1977; Woodson Co., Woodson Co. St. Lake, 7 Aug 1974 and 6 Sept 1976; Yates Center City Lake, 16 Sept. 1976.

North America: Widespread east of the Rocky Mountains.

O. cristata Morton

Kansas: Chautauqua Co., New Sedan City Lake, 29 Jul 1975; Douglas Co., Fish experiment ponds, Univ. of Kansas, 2 Jul 1975.

North America: Widespread east of the Rocky Mountains.

Oxyethira Eaton*O. dualis* Morton

Kansas: Ellsworth Co., seepy spring, SW of S end of Kanopolis dam, 17 Jun 1977; Trego Co., Spring Cr., NE of the Nat'l. Fish Hatchery, Cedar Bluff Reservoir, 26 Jul

1976.

North America: Arkansas, California, Kansas, Missouri, New Mexico, New York, Texas and Virginia.

O. pallida (Banks)

Kansas: Atchison Co., Atchison Co. St. Lake, 23 Jun 1977; Little Delaware R., NW of Kennekuk, 23 Jun 1977; Chase Co., Chase Co. St. Lake, 3 Aug 1977; Chautauqua Co., New Sedan City Lake, 29 Jul 1975; Caney R. at Cedarvale, 15 Jun 1977; Cherokee Co., Spring R., E of Baxter Springs, 2 Aug 1976; Cowley Co., Cowley Co. St. Lake, 17 Jun 1975; Crawford Co., Lake Crawford, NE of Farlington, 3 Aug 1976; Douglas Co., Fish experiment ponds, Univ. of Kansas, 2 Jul 1975; Wakarusa R. S of Lawrence, 8 Jul 1976; Ellsworth Co., Kanopolis Reservoir outflow, 15 Jul 1976 and 3 Aug 1977; Beaver ponds, NE St. Park, Kanopolis Reservoir, 8 Jun 1977; Gove Co., Hackberry Cr. at Gove, 27 July 1976; Leavenworth Co., Leavenworth Co. St. Lake, 7 Aug 1975 and 27 Sept 1977; Lyon Co., Emporia St. Univ. Nat. Hist. Reserve, SW of Americus, 15 Sept 1977; Mitchell Co., Solomon R. at Beloit, 4 Aug 1977; Montgomery Co., Montgomery Co. St. Lake, 24 Jun 1976; Neosho Co., Neosho Co. St. Lake, 18 Jul 1977; Ottawa Co., Ottawa Co. St. Lake, 9 Jul 1977; Republic Co., old wood pond, NW of Haworth; 6 Aug 1977; Riley Co., swamp below Tuttle Creek Reservoir dam, 11 May 1977; Rooks Co., S. Fork Solomon R. S of Stockton, 22 Jul 1976; Scott Co., Lake Scott St. Park at spring, 16 Jul 1975; Trego Co., Spring Creek, NE of the Nat'l. Fish Hatchery, Cedar Bluff Reservoir, 26 Jul 1976; Woodson Co., Woodson Co. St. Lake, 19 Jun 1975 and 6 Sept 1976.

North America: Widespread east of the Rocky Mountains.

O. zeronia Ross

Kansas: Chautauqua Co., New Sedan City Lake, 29 Jul 1975.

North America: Illinois, Kansas, Maine, Michigan, Minnesota, New Hampshire and Tennessee.

Stactobiella Ross

S. delira (Ross)

Kansas: Cherokee Co., Shoal Cr. S of Galena at K-26 bridge, 23 Apr 1977.

North America: Arkansas, Colorado, Idaho, Kansas, Kentucky, Maine, New Hampshire, North Carolina, Oklahoma, Tennessee, West Virginia, Wisconsin and Wyoming.

S. palmata (Ross)

Kansas: Cherokee Co., Shoal Cr. S of Galena at K-26 bridge, 23 Apr 1977.

North America: Illinois, Kansas, Kentucky, Maine, New Hampshire, Oklahoma, Tennessee and Wisconsin.

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